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EXAMINER

HENCE EVANS, ANDREA

ART UNIT

PAPER NUMBER

2854

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/955,826

Applicant(s)

BELANGER ET AL.

Examiner

Andrea A. Hence

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-10,13, and 16 -18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz (6,161,478) in view of Saueressig (3,253,323).

Referring to claim 1, Katz teaches a printing unit comprising a rigid cylinder (26) rotatable about an axis of rotation; a plurality of inflatable bladders ((32), (34)) disposed on a circumferential surface of the cylinder; a first fluid supply regulation unit (85) configured to supply a first fluid to a first set of inflatable bladders (See (32) on top and bottom of left side of the cylinder) of a plurality of bladders and to regulate a first fluid pressure inside the first set of inflatable bladders; and a flexible cylinder covering ((36), (38)) disposed over an outer surface of the plurality of bladders. Katz does not teach that the plurality of inflatable bladders substantially cover the circumferential surface of the cylinder. Saueressig teaches a plurality of

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inflatable bladders substantially covering the circumferential surface of the cylinder. (See Figure 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inflatable bladders of Katz such that they substantially cover the circumferential surface of the cylinder for the purpose of providing a more even distribution of the load to provide a secure attachment of the sleeve as taught by Saueressig.

Referring to claim 2, Katz teaches the printing unit wherein the first set of inflatable bladders include all of the plurality of inflatable bladders. (See Figure 2).

Referring to claim 3, Katz teaches the printing unit wherein the flexible cylinder covering (36) includes a single-layer material.

Referring to claim 4, Katz teaches a printing unit further comprising a printing sock (22) removably disposed over a circumferential surface of the flexible cylinder covering ((36), (38)).

Referring to claim 5, Katz teaches a printing unit wherein the printing sock (22) is sleeved-shaped (See Figure 2).

Referring to claim 6, Katz teaches the printing unit further comprising a second fluid supply regulation unit (87) configured to supply a second fluid to a second set of inflatable bladders ((34) as shown on right side of the cylinder) and to regulate a second fluid pressure inside the second set of inflatable bladders.

Referring to claim 7, Katz teaches a printing unit further comprising a first fluid line (See Figure 3) connecting the first fluid supply regulation unit (85) to the first set of bladders (32) and a second fluid line (See Figure 2) connecting the second fluid supply regulation unit (87) to the second set of inflatable bladders ((34) as shown on right side of the cylinder).

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Referring to claim 8, Katz teaches a printing unit where in the first and second fluid supply regulation units ((85),(87)) configured to regulate the first and second fluid pressures while the cylinder is rotating about the axis (See Figure 2).

Referring to claim 9, Katz teaches the use of a rotary union configured to enable the first and second fluid to flow through the fluid lines while the cylinder is rotating about the axis. (See the connection point between the fluid supply regulation unit (85))

Referring to claim 10, Katz teaches a printing unit wherein the first and second fluids include at least one of air and a hydraulic fluid (Column 3, Lines 50-53).

Referring to claim 13, Katz teaches a printing cylinder (20) for an offset printing press comprising a rigid cylinder (26) rotatable about an axis of rotation; a plurality of ring-shaped inflatable bladders ((32), (34)) disposed on a circumferential surface of the cylinder and each configured to encircle the circumference of the cylinder (See Figure 1); a fluid supply regulation unit (85) configured to supply to a set of inflatable bladders of the plurality of inflatable bladders and to regulate a fluid pressure inside the first set of inflatable bladders; a single-layer flexible covering ((36), (38)) disposed over an outer surface of the plurality of bladders; and a sleeve-shaped printing sock (22) removably disposed over a circumferential surface of the flexible cylinder covering.

Katz teaches a printing cylinder for an offset printing press but does not state that the printing cylinder is a blanket cylinder. However, it is well known in the art that a blanket cylinder, as claimed by applicant, is a type of printing cylinder, and therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Katz by replacing the printing cylinder with a blanket cylinder.

Katz does not teach that the plurality of inflatable bladders substantially cover the circumferential surface of the cylinder. Saueressig teaches a plurality of inflatable bladders substantially covering the circumferential surface of the cylinder. (See Figure 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inflatable bladders of Katz such that they substantially cover the circumferential surface of the cylinder for the purpose of providing a more even distribution of the load to provide a secure attachment of the sleeve as taught by Saueressig.

Referring to claim 16, Katz teaches a printing unit comprising a rigid cylinder (26) rotatable about an axis of rotation; an inflatable device (34) disposed on a circumferential surface of the cylinder; a first fluid supply regulation unit (85) configured to supply a first fluid to the inflatable device; and a flexible cylinder covering ((36), (38)) disposed over an outer surface of the inflatable device, and a sleeve-shaped printing sock (22) removably disposed over a circumferential surface of the flexible cylinder covering; the first fluid supply regulation unit adjusting a compressibility of the printing sock (See Column 3, lines 54-61). Katz does not teach the inflatable device having a similar axial length to the printing sock. Saueressig teaches the inflatable device (3) having a similar axial length to the printing sock (See Figure 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inflatable device of Katz such that it has a similar axial length to the printing sock in order to distribute the pressure of the roller in a substantially even manner over the surface as taught by Saueressig.

Referring to claim 17, Katz teaches a first bladder (32) of the first set of bladders has a single connection (See Figure 2) to the first fluid supply regulation unit (85).

Referring to claim 18, Katz teaches all that is claimed as discussed in the above rejections except a printing unit wherein a first bladder of the first set of bladders is of single piece construction. Saueressig teaches a bladder (3) of single piece construction. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Katz by replacing its bladder with the bladder of Saueressig made of single piece construction to facilitate assembly and disassembly as taught by Saueressig.

4. Claim 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz (6,161,478) in view of Saueressig (3,253,323) and further in view of Rau et al (5,784,957).

Referring to claim 11, Katz teaches all that is claimed, as discussed in the above rejections except Katz does not teach the use of a heat exchanger connected to the first fluid regulation unit. Rau et al. discloses a heat exchanger (34).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Katz by including a heat exchanger to aid in regulating the temperature of the fluid to prevent it from detrimentally effecting the system as taught by Rau et al.

Referring to claim 12, Katz teaches a printing unit wherein each of the plurality of bladders forms a ring around the circumference of the cylinder (See Figure 2).

5. Claims 14,15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz ('478). Referring to claim 14, Katz teaches a method for mounting a sleeve-shaped printing sock (12) onto a cylinder (10), the method comprising: at least partially deflating a set of inflatable bladders (48) disposed at an outer region of the cylinder; positioning the sleeve-shaped

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sock over one end of the cylinder so that the printing sock at least partially surrounds a circumference of the cylinder (See Column 4, lines 4-8); and inflating the set of inflatable bladders so that the printing sock fits tightly around the circumference of the cylinder (See Column 4, lines 8-14); and adjusting a compressibility of the printing sock on the blanket cylinder (See Column 4, lines 10-18). Referring to claims 14, *The American Heritage College Dictionary* defines compressibility as “to press together.” Katz teaches adjusting a compressibility of the printing sock (See Column 4, lines 10-18 and lines 21-27).

Katz teaches a printing cylinder for an offset printing press but does not state that the printing cylinder is a blanket cylinder. However, it is well known in the art that a blanket cylinder, as claimed by applicant, is a type of printing cylinder, and therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Katz by replacing the printing cylinder with a blanket cylinder.

Referring to claim 15, Katz teaches the method further comprising adjusting a fluid pressure inside the set of inflatable bladders (See Column 4, lines 9-10).

Referring to claim 19, Katz teaches the method wherein the compressibility is adjusted during a printing operation (See Column 4, lines 14-19).

Examiner Comments

Claims 1-19 are rejected. Referring to claim 1 and 13, Katz does not teach that the plurality of inflatable bladders substantially cover the circumferential surface of the cylinder. Saueressig teaches a plurality of inflatable bladders substantially covering the circumferential surface of the cylinder. (See Figure 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inflatable bladders of Katz such that

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they substantially cover the circumferential surface of the cylinder for the purpose of providing a more even distribution of the load to provide a secure attachment of the sleeve as taught by Saueressig. Referring to claims 14, The American Heritage College Dictionary defines compressibility as “to press together.” Based on this definition, Katz teaches adjusting a compressibility of the printing sock (See Column 4, lines 10-18 and lines 21-27) thus it is not necessary that a separate structure be provided to provide compressibility as mentioned in applicant’s response. Referring to claim 16, Katz does not teach the inflatable device having a similar axial length to the printing sock. Saueressig teaches the inflatable device (3) having a similar axial length to the printing sock (See Figure 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inflatable device of Katz such that it has a similar axial length to the printing sock in order to distribute the pressure of the roller in a substantially even manner over the surface as taught by Saueressig.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea Hence Evans whose telephone number is (703) 305-8427. The examiner can normally be reached on Monday- Friday; 8:30a-5:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Andrew Hirshfeld can be reached on (703) 305-6619. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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Andrea Hence Evans

AHE

August 18, 2003

A handwritten signature in black ink, appearing to read "Andrew H. Hirshfeld", written in a cursive style.

ANDREW H. HIRSHFELD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800